Mediterranean Journal of Medical Research
ISSN: 2789-1895
Mediterr J Med Res
doi: 10.5281/zenodo.18563380
https://mrj.org.ly

ORIGINAL RESEARCH article

A study of knowledge and practice about personal hygiene among school students

Maria Siddika Mim, **Md. Aktaruzzaman** *, and **Sheikh Tarikul Islam Tusher**

Department of Pharmacy, Jahangirnagar University, Dhaka-1342, Bangladesh
* Author to whom correspondence should be addressed

Received: 01-01-2026, **Accepted:** 05-02-2026, **Published online:** 10-02-2026

Copyright© 2026. This open-access article is distributed under the *Creative Commons Attribution License*, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

HOW TO CITE THIS
Mim et al. A study of knowledge and practice about personal hygiene among school students.
Mediterr J Med Res. 2026; 3(1): 53-58. [Article number: 39]. https://doi.org/10.5281/zenodo.18563380

Keywords: Healthy lifestyle, hygiene practice, personal hygiene, water-borne illnesses

Abstract: A nation's economic health is a good indicator of its prosperity. Priority should be given to maintaining personal cleanliness to increase job accuracy, reduce illness, and to avoid health complications. Keeping oneself clean is essential as it can stop a lot of infectious diseases. Personal hygiene practices can have emerged in childhood and the growing years. However, particularly the school kids are particularly more likely to neglect basic personal hygiene. This study aims to assess the habits and practices of personal hygiene among sixth- to ninth-grade students at a high school in Bangladesh. 185 school students from Jalalpur High School in Kishoreganj, Bangladesh, were evaluated on their understanding and usage of personal hygiene through interview. The participants were between the ages of eleven and fifteen. This study was conducted for one month in February 2025. The biggest population percentage belonged to the 15-year-old age group. In terms of family income, the largest percentage falls into the income level of up to 30,000 Taka (between lower middle and upper middle income). All students recognize the value of hand washing before eating. 98.4% of the students understand the need to clean their bodies every day. Furthermore, 23.2% do not understand the significance of using soap when taking a bath. All respondents said they washed their bodies every day, and 67.6% used soap when taking a bath. The findings showed a solid foundation for cleanliness habits among the school students involved in this study, establishing a favorable standard for hygiene practice and better instruction in such an important workplace and educational environment.

Introduction

Maintaining good hygiene is essential to living a healthy lifestyle. The skill of maintaining your greatest possible quality of life is known as personal hygiene. It all comes down to looking for yourself and making sure you're fresh and healthy [1]. Children can acquire some health-promoting behaviors in high school, even if they do not completely comprehend the connections between behavior and sickness. Being a socializing institution, schools are crucial to the formation of healthy citizens. As kids grow up and acquire a lot of information about personal hygiene and lifestyle in school, they will be better equipped as adults to preserve both their own and their family's health [2]. It is possible to assist kids in forming lifelong healthy habits by teaching them the importance of maintaining proper cleanliness. Younger children who develop good cleanliness practices will have an easier time adjusting to adult hygiene practices [3]. Extreme living circumstances, poverty, laborious life, limited access to drinking water, and inadequate sanitation are prevalent in developing and poor nations. Poor hygiene behavior is one of the major issues that leads to this sort of circumstance. Commonly, schoolchildren are susceptible to neglecting basic personal hygiene. Teachers, who are the first point of contact in schools, can promote hygienic practices through proper health education,

preventing the majority of health issues that affect children, such as diarrheal disease, skin disease, worm infestation, and dental disease [4, 5]. The science of healthy living, or personal hygiene, includes all daily behaviors that support a person's health and well-being. The greatest public health concern, especially in poorer nations, is the illnesses that result from poor personal hygiene [6]. Diarrheal illness and respiratory tract infections are currently the two leading causes of death for children in poor nations [5, 7]. Children are more susceptible to food and water-borne illnesses as a result of inadequate cleanliness [8]. The fecal route is the primary or remarkable means of transmission for the majority of the pathogens that cause diarrhea [9]. A report stated that, globally, food-borne illnesses affect 9.4 million individuals annually [10].

Infectious diseases have emerged as one of the major issues that emerging nations worldwide are dealing with to varing degrees [8]. Controlling infections in a school population where kids live in close proximity to one another is one area of particular concern. According to the theory that hands can easily become contaminated from a variety of activities, including using the restroom, changing a baby's diaper, handling raw food, playing, shaking hands, cleaning, handling pets and domestic animals, wiping, blowing the nose, or sneezing into the hands, and caring for an infected person, hands are one of the most significant means of disease transmission in such an environment. Cleaning one's hands to get rid of dirt, grime, and microbes is known as hand washing [11, 12]. Especially in developing and poor nations, hand hygiene, particularly washing hands with soap and running water, has been demonstrated to be a cost-efficient and highly effective intervention in lowering morbidity and death from infectious illnesses during such crucial times [13, 14]. Explaining how, why, and when to wash our hands is the first step in most hand-washing education programs. Centers for Disease Control and Prevention (2009) advises washing hands with warm water and soap by rubbing them together for at least 10 to 15 seconds. The hands, wrists, palms, backside of the hands, fingers, and beneath the fingernails all should be cleaned [14]. It is advised to use hand lotion after washing to avoid dry skin [15]. Children can lower their risk of diarrhea by 40.0% by washing their hands with soap after using the restroom or before eating [16]. By keeping kids in school, proper hand washing practices support their healthy growth. By halting the spread of avoidable illnesses, hand washing actually increases school attendance since kids are free from homesickness [17]. This study aims to address bad hygiene practices, particularly among schoolchildren, in order to promote health in developing nations that face issues including poverty, rural life, restricted access to clean water, and inadequate sanitation. By using specialized health education programs to educate kids about the value of good hand washing and personal cleanliness, this problem may be addressed. By doing this, we intend to lessen avoidable health complications, including worms, respiratory infections, skin conditions, tooth disorders, and diarrhea. Thus, the goal of this study was to assess the personal hygiene awareness and practices of sixth to ninth grade students at Jalalpur High School in Kishoreganj, Bangladesh.

Materials and methods

A descriptive cross-sectional study was conducted in February 2025 among secondary school students at Jalalpur High School in Kishoreganj, Bangladesh. Using convenience sampling, the school was specifically selected to reflect hygiene practice of students with socioeconomic levels. In total, 185 students from classes sixth to ninth were randomly selected and included in this study (age; 11-15, gender; 108 male & 77 female). Students who were present at the school and granted their agreement to participate in the study provided their opinion about the hygiene questionnaire. Two students from that school collected data through in-person interviews and using a semi-structured questionnaire. The interview was done in the Bengali language, and later the essence of their commentary was translated into English for this paper.

Ethical approval: All participants provided informed consent orally, and the Jalalpur High School authority formally granted permission. The study received ethical approval from the authority of the institution (reference number JHS/EA/04/BD). To protect anonymity, all interviews took place in empty classrooms, and SPSS version 21 was used to manage and analyze the data.

Results

This study intends to assess personal hygiene knowledge and practices, with a focus on hand-washing and body washing. The participant students' age ranges from 11 to 15 years, with the highest percentage belonging to the 15-year-old age group. The survey measured the range of age representation and considered the educational levels of the students, revealing that 37.3% were in class eight, 33.5% in class nine, and 7.0% in class six (**Table 1**). **Table 2** displays the distribution. The socioeconomic level of students' families according to their income levels differs between 20000 and 100000 Taka. 98.4% of the students understand the need of cleaning their bodies every day. Furthermore, 23.2% do not understand the significance of using soap when taking a bath. All students recognize the value of hand cleaning before eating. 94.0% understand the importance to clean their teeth every day. In addition, 60.5% understand the value of routine nail care (**Table 3**). The study examined individuals' diverse hygiene habits, emphasizing good practices (**Table 4**).

Table 1: Age and class distribution of respondents

Variables	Variables	Frequency (%)
Respondents age (Years)	11	14 (07.6)
	12	38 (20.5)
	13	40 (21.6)
	14	42 (22.7)
	15	51 (27.6)
Reading class	Class VI	13 (07.0)
	Class VII	41 (22.2)
	Class VIII	69 (37.3)
	Class IX	62 (33.5)

Table 2: Family income of the participant students

Income Taka	Frequency (%)
Up to 20000	47 (25.4)
Up to 30000	82 (44.3)
Up to 50000	50 (27.0)
Up to 100000	06 (03.2)

Table 3: Students' awareness of personal hygiene

Knowledge on personal hygiene on	Know	Do not know
	Frequency (%)	Frequency (%)
Daily body wash	182 (98.4)	03 (01.6)
Using soap during bath	142 (76.8)	43 (23.2)
Washing hand before taking food	185 (100)	00 (00.0)
Washing hand using soap before taking food	164 (88.6)	21 (11.4)
Brushing teeth daily	184 (99.5)	01 (00.1)
Regular nail cutting	112 (60.5)	73 (39.5)
Daily body wash	182 (98.4)	-

Table 4: Personal responses about the hygiene practices of the students

Respondents' activities	Yes (%)
Body wash daily	185 (100)
Taking bath with soap	125 (67.6)
Hair cutting regularly	105 (56.8)
Washing facility at near latrine	178 (96.2)
Hand wash after using toilet	185 (100)

Discussion

Almost all of the participant students reported washing their bodies every day, which is quite consistent with the findings of Shekhawat and others [4] and shows that the secondary school students who were interviewed adhered closely to basic personal hygiene practices. Another research by Rajbhandari and others [6] reveals that 96.2% of the respondents performed hand cleaning before meals, similar to the current study, with 100% reporting doing so and 88.0% explicitly mentioning using soap for this reason. Furthermore, all the respondents said they washed their hands after using the restroom. These numbers point to a high degree of hand hygiene awareness and practice, which is essential to stop the transmission of gastrointestinal infections. Maintaining hygiene standards is positively impacted by the availability of sanitary facilities, especially after using the restroom. According to the statistics, just 56.75% of the respondents said they regularly got their hair cut, suggesting that hair cutting is not as common. This might indicate differences in the examined population's personal hygiene practices or cultural preferences [18]. 99.5% of respondents believed that brushing and flossing on a regular basis is an excellent tooth cleaning practice. This result is quite consistent with research by Sihra and others [19] that reported 95.0% of the students knew how to brush their teeth [20, 21]. According to a survey conducted by Chowdhury, in Tennessee, 61.0% of kids wash their hands and feet after school, and all of them change their clothing every day in the summer, while 56.0% do so every day in the winter [22]. According to a survey conducted in Nepal, the majority of the participants knew a lot about personal hygiene; women knew more than men, but the overall practice was average to poor [6, 23].

The results of many previous studies showed that while these positive habits are linked to individual-level wash behaviors, the lack of contextual and socio-behavioral aspects of wash practices in educational institutions is a barrier that keeps people from sustaining and promoting these positive habits at the individual level. Research claims that students at their educational institutions sometimes failed to maintain better hygienic and sanitary conduct [5]. The availability and utilization of cleaning tools at various levels were not adequately monitored and supervised by the school officials, which might have led to subpar results. A shortage of cleaning materials (soap, sanitizer, or other products) hindered timely maintenance of sanitation facilities and standard quality [14]. Similar results have been shown in control trials, systematic reviews, and cross-sectional investigations carried out in various foreign countries [24-27]. Numerous diseases are also readily transmitted in places with inadequate sanitation, such as cholera, viral hepatitis A, trachoma, ascariasis, and other infectious diseases [28-30]. The main purpose of sanitation and hygiene is to provide a healthy living environment for all people, protect natural resources (e.g., soil, groundwater, and surface water), and ensure safety for the general public, security, and dignity. In the case of fecal-borne illnesses, efficient sanitation systems provide barriers between excreta and humans to stop the cycle of disease transmission.

Conclusion: The study on personal hygiene among Bangladeshi high school students identifies good practices and gaps for development. To improve cleanliness habits and guarantee well-being, it emphasizes the significance of continuous education and awareness efforts. It is essential to check hygiene practices and upgrade school facilities. The importance of hand washing in preventing illness is highlighted, underscoring the connection between public health, education, and personal cleanliness.

References

1. Parveen F, Afzal M, Hussain M, Gilani SA. Knowledge, attitude and practice towards personal hygiene among primary: School children of rural area of Lahore, Pakistan. Saudi Journal of Nursing and Health Care. 2018; 1(3): 91-97. doi: 10.21276/sjnhc
2. Ghosh S, Kabir MR, Khan MM, Shill LC, Alam SS. Knowledge, attitude and practice (KAP) regarding personal hygiene among primary school going children in Sadar Upazilla, Noakhali District, Bangladesh. Indian Journal of Public Health. 2020; 11(6): 1465-1469. doi: 10.37506/ijphrd.v11i6.10601

3. Khatoon R, Sachan B, Khan MA, Srivastava JP. Impact of school health education program on personal hygiene among school children of Lucknow district. Journal of Family Medicine and Primary Care. 2017; 6(1): 97-100. doi: 10.4103/2249-4863.214973
4. Shekhawat R, Sodha VS, Sharma N, Verma M. Knowledge and practice regarding personal hygiene among students of government schools of Bikaner, Rajasthan. International Journal of Advanced Community Medicine. 2019; 2(2): 108-111. doi: 10.33545/comed.2019.v2.i2b.15
5. Uddin MM, Rahman MM, Rafi IK, Khandaker MS. Health problems in Bangladesh: A struggle for equitable and accessible healthcare. Mediterranean Journal of Medicine and Medical Sciences. 2025; 1(1): 1-7. doi: 10.5281/zenodo.15606021
6. Rajbhandari AK, Dhaubanjar R, GC KB, Dahal M. Knowledge and practice of personal hygiene among secondary school students of grade nine and ten. Journal of Patan Academy of Health Sciences. 2018; 5(2): 107-113. doi: 10.3126/jpahs.v5i2.24030
7. Buda AS, Mekengo DE, Lodebo TM, Sadore AA, Mekonnen B. Knowledge, attitude and practice on hand washing and associated factors among public primary schools' children in Hosanna town, Southern Ethiopia. Journal of Public Health and Epidemiology. 2018; 10(6): 205-214. doi: 10.5897/JPHE2017.0987
8. Hashad SS, Etayari HM, Mejrab EM. Assessment of staff knowledge level and evaluation of medical staff for the prevention of central-line-associated bloodstream infections. Mediterranean Journal of Medical Research. 2025; 2(4): 186-195. doi: 10.5281/zenodo.17487415
9. Manandhar P, Chandyo RK. Hand washing knowledge and practice among school going children in Duwakot, Bhaktapur: A cross sectional study. Journal of Kathmandu Medical College. 2018; 6(3): 110-115. doi: 10.3126/jkmc.v6i3.19827
10. Azuogu VC, Ilo CI, Nwimo IO, Azuogu BN, Onwunaka C. Extent of hand-washing practice among secondary school students in Ebonyi State, Nigeria. International Journal of Education, Learning and Development. 2016; 4(7): 11-22. doi: Nil.
11. Bhattacharya S, Talati S, Gupta AK, Malhotra S, Singh A. Implementing a skill development program among food handlers in tertiary care hospital to improve their personal hygiene: A pilot study. Journal of Education and Health Promotion. 2019; 8: 129. doi: 10.4103/jehp.jehp_452_18
12. Majorin F, Freeman MC, Barnard S, Routray P, Boison S, Clasen T. Child faces disposal practices in rural Orissa: A cross-sectional study. PLoS One. 2014; 9(2): e89551. doi: 10.1371/journal.pone.0089551
13. Chittleborough CR, Alexander LN, Elaine B, Bell S, Campbell R. Factors influencing hand washing behavior in primary schools: Process evaluation within a randomized controlled trial. Health Education Research. 2012; 27(6): 1055-1068. doi: 10.1093/her/cys061
14. Neser FR, Ibsheesh FA, Alhaj AM, Alghazal KA, Ibrahem KM, Bouder OM. Knowledge, performance, and awareness towards the use of disinfectant and hand sanitizers during COVID-19 pandemic: A questionnaire-based survey. Mediterranean Journal of Pharmacy and Pharmaceutical Sciences. 2024; 4(2): 55-63. doi: 10.5281/zenodo.11479336
15. Dekate P, Mourya A. To compare the knowledge and attitude towards hand washing technique among school children in urban and rural area. International Journal of Scientific and Research Publications. 2017; 7(9): 59-65. doi: Nil.
16. Haq IUI. Dietary and medicinal plant-based management of diarrhea: A mini review. Mediterranean Journal of Medical Research. 2026; 3(1): 34-39. doi: 10.5281/zenodo.18343431
17. Rahaman MA, Kalam A, Al-Mamun M. Unplanned urbanization and health risks of Dhaka City in Bangladesh: uncovering the associations between urban environment and public health. Frontiers in Public Health. 2023; 11: 1269362. doi: 10.3389/fpubh.2023.1269362
18. Engdaw GT, Alemu D, Alemayehu M, Tesfaye AH. Handwashing practices among public primary school students in East Dembiya District, Ethiopia. American Journal of Tropical Medicine and Hygiene. 2024; 110(4): 826-834. doi: 10.4269/ajtmh.23-0201
19. Sihra J, Meena G, Meena N, Naroliya D, Saini L, Kaur M, Gaur K. Assessment of Knowledge and Practices regarding personal hygiene among students of Government schools of Jaipur city: A cross-sectional survey. International Multispecialty Journal Health. 2018; 4(4): 125-130. doi: Nil.
20. Rafi IK. Critical aspects and future directions of root canal treatment to know in dental education: A policy brief. Mediterranean Journal of Medicine and Medical Science. 2025; 1(3): 1-3. doi. 10.5281/zenodo.17281553
21. Mokahel LM, Erfida IB. Libyan parents' knowledge and awareness of primary teeth and their importance: A study in Misurata City. Mediterranean Journal of Medical Research. 2025; 2(3): 114-119. doi: 10.5281/zenodo.16790655
22. Chowdhury TN, Mahajan P. Knowledge, attitude and practices among government school students towards personal hygiene. International Journal of Scientific Research and Technology. 2020; 7(6): 311-322. doi: 10.32628/IJSRST

23. Begum M, Alam FS, Hossain MT, Hasan AHM. Knowledge and practice of personal hygiene among the high school students in a rural area of Mymensingh, Bangladesh. Community Based Medical Journal. 2022; 11(2): 136-143. doi: 10.3329/cbmj.v11i2.61283
24. Meadows E, Le Saux N. A systematic review of the effectiveness of antimicrobial rinse-free hand sanitizers for prevention of illness-related absenteeism in elementary school children. BMC Public Health. 2004; 4: 50. doi: 10.1186/1471-2458-4-50
25. Pickering AJ, Davis J, Blum AG, Scalmanini J, Oyier B, Okoth G, et al. Access to waterless hand sanitizer improves student hand hygiene behavior in primary schools in Nairobi, Kenya. American Journal of Tropical Medicine and Hygiene. 2013; 89(3): 411-418. doi: 10.4269/ajtmh.13-0008
26. Hoque M, Aktaruzzaman M, Hasan MN. Dental patients' views on oral health and hygiene: A questionnaire-based assessment in Bangladesh. GMS Hygiene and Infection Control. 2026; 21: Doc04. doi: 10.3205/dgkh 000613
27. Deb S, Dutta S, Dasgupta A, Misra R. Relationship of personal hygiene with nutrition and morbidity profile: a study among primary school children in South Kolkata. Indian Journal of Community Medicine. 2010; 35(2): 280-284. doi: 10.4103/0970-0218.66894
28. Khandekar P, Ghosh PK. Infectious human diseases: Regions, habitats, threats, and mitigation strategies. MGM Journal of Medical Sciences. 2022; 9(4): 567-576. doi: 10.4103/mgmj.mgmj_176_22
29. Ahmed R, Hoque M, Hasan MN. Scabies prevalence and management in Bangladesh: A narrative review. Bangladesh Journal of Infectious Diseases. 2025; 12(1): 151-158. doi: 10.3329/bjid.v12i1.83987
30. Ashbolt NJ. Microbial contamination of drinking water and disease outcomes in developing regions. Toxicology. 2004; 198(1-3): 229-238. doi: 10.1016/j.tox.2004.01.030

Author contribution: All authors conceived and designed the study. MSM & MA collected data and performed the analysis. All authors equally contributed to the manuscript and agreed to be accountable for its contents.
Conflict of interest: The authors declare the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.
Ethical issues: The authors completely observed ethical issues, including plagiarism, informed consent, data fabrication or falsification, and double publication or submission.
Data availability statement: The raw data that support the findings of this article are available from the corresponding author upon reasonable request.
Author declarations: The authors confirm that they have followed all relevant ethical guidelines and obtained any necessary IRB and/or ethics committee approvals.
Generative AI disclosure: No generative AI was used in the preparation of this manuscript.